

WHAT IS CLAIMED:

- 31bA1 1. A machine for producing a fibrous material web comprising:  
at least one shoe press including at least one drying cylinder and a shoe press unit which are arranged to form a pressing nip elongated in a web travel direction;  
at least one suctioned apparatus arranged before said at least one shoe press relative to the web travel direction;  
a water-permeable continuous carrying belt arranged to guide the fibrous material web over said at least one suctioned apparatus and through said elongated pressing nip; and  
a hood subjected to an overpressure being assigned to said suctioned apparatus and being arranged to support an underpressure effect of said at least one suctioned apparatus.
2. The machine in accordance with claim 1, wherein the fibrous material web comprises a tissue or hygiene paper web.
3. The machine in accordance with claim 1, wherein, as said carrying belt guides the fibrous material web over said suctioned apparatus, said carrying belt is arranged between the fibrous material web and said suctioned apparatus.
- ~~4. The machine in accordance with claim 1, wherein said suctioned apparatus comprises a suction roll.~~
- 31bA2 5. The machine in accordance with claim 1, wherein said hood contains an overpressure fluid comprising at least one of overheated steam and dry and/or moist hot air.
6. The machine in accordance with claim 1, further comprising a suction element positioned between said suctioned apparatus and said at least one shoe press.
7. The machine in accordance with claim 6, wherein said suction element comprises a suction box.

2bA2 8. The machine in accordance with claim 1, wherein said at least one shoe press unit comprises a plurality of pressing zones arranged crosswise to the web travel direction.

9. The machine in accordance with claim 8, wherein said plurality of pressing zones are controllable independently of one another.

10. The machine in accordance with claim 1, wherein said drying cylinder comprises a tissue or Yankee drying cylinder, and said machine further comprises a crepe doctor arranged to remove the fibrous material web from said tissue or Yankee drying cylinder after drying.

11. The machine in accordance with claim 1, wherein machine includes a forming section in which said carrying belt is arranged to accept a fibrous stock suspension from a headbox.

12. The machine in accordance with claim 1, further comprising a forming roll and a continuous outer wire,

wherein said carrier belt is also guided over said forming roll as an inner belt over a forming roll in relation to said continuous outer wire.

13. The machine in accordance with claim 12, wherein said inner belt comprises a felt belt.

14. The machine in accordance with claim 12, wherein said inner belt comprises a wire belt.

15. The machine in accordance with claim 12, wherein said inner belt comprises a dewatering belt.

16. The machine in accordance with claim 12, wherein said inner belt comprises an imprinting member.

17. The machine in accordance with claim 1, wherein said carrier belt comprises a felt belt.

46A2 18. The machine in accordance with claim 1, wherein said carrier belt comprises a wire belt.

19. The machine in accordance with claim 1, wherein said carrier belt comprises a dewatering belt.

20. The machine in accordance with claim 1, wherein said carrier belt comprises an imprinting member.

21. The machine in accordance with claim 1, further comprising an additional continuous felt belt which is arranged between said carrying belt and said shoe press unit and which is guided through said elongated pressing nip along with the fibrous material web and said carrying belt.

22. The machine in accordance with claim 1, wherein said one shoe press unit comprises a water-impermeable continuous, circulating press belt.

23. The machine in accordance with claim 1, wherein said shoe press unit comprises a shoe press roll with a pressing jacket.

24. The machine in accordance with claim 23, wherein said pressing jacket comprises a water-impermeable pressing jacket.

25. A process for producing a fibrous material web in an apparatus including a water-permeable continuous carrying belt, at least one shoe press having an elongated pressing nip formed between a drying cylinder and a shoe press unit, at least one suctioned apparatus, which includes a hood, arranged before the at least one shoe press unit relative to a web travel direction, and a carrying belt guided over the at least one suctioned apparatus, said process comprising:

guiding the fibrous material web and the carrying belt through the elongated pressing nip; and

supporting an underpressure effect of the suctioned apparatus by creating an overpressure in the hood.

26. The process in accordance with claim 25, wherein the fibrous material web comprises a tissue or hygiene paper web.

27. The process in accordance with claim 25, wherein, as the carrying belt guides the fibrous material web over the suctioned apparatus, the carrying belt is positioned between the suctioned apparatus and the fibrous material web.

28. The process in accordance with claim 25, wherein the suctioned apparatus comprises a suction roll.

29. The process in accordance with claim 25, wherein the overpressure in the hood is created by an overpressure fluid comprising at least one of overheated steam and dry and/or moist hot air.

30. The process in accordance with claim 25, wherein the apparatus further includes a suction element positioned between the suctioned apparatus and the at least one shoe press, and process further comprises suctioning the carrying belt and fibrous material web guided over the suction element.

31. The process in accordance with claim 25, wherein said suction element comprises a suction box.

32. The process in accordance with claim 25, wherein the shoe press unit comprises a plurality of pressing zones arranged at least crosswise to the web travel direction, and the process further comprises independently controlling the plurality of pressing zones.

33. The process in accordance with claim 25, wherein the drying cylinder comprises a tissue or Yankee drying cylinder, and the process further comprises scraping the fibrous material web from the tissue or Yankee drying cylinder after drying.

34. The process in accordance with claim 33, wherein the apparatus further includes a crepe doctor and the process comprises scraping the fibrous material web

from the tissue or Yankee drying cylinder after drying with the crepe doctor.

35. The process in accordance with claim 25, wherein the apparatus includes a forming section and the carrying belt is guided through the forming section, and the process further comprises accepting a fibrous material suspension from a headbox on the carrying belt.

36. The process in accordance with claim 25, wherein the apparatus further includes a forming roll with a continuously outer wire, and the carrying belt is guided over the forming roll as an inner wire between the continuous outer wire and the forming roll, and the process further includes supplying a fibrous material suspension between the inner wire and the outer wire.

37. The process in accordance with claim 36, wherein said inner belt comprises a felt belt.

38. The process in accordance with claim 36, wherein said inner belt comprises a wire belt.

39. The process in accordance with claim 36, wherein said inner belt comprises a dewatering belt.

40. The process in accordance with claim 36, wherein said inner belt comprises an imprinting member.

41. The process in accordance with claim 25, wherein said carrier belt comprises a felt belt.

42. The process in accordance with claim 25, wherein said carrier belt comprises a wire belt.

43. The process in accordance with claim 25, wherein said carrier belt comprises a dewatering belt.

44. The process in accordance with claim 25, wherein said carrier belt comprises an imprinting member.

3b A3 45. The process in accordance with claim 25, wherein the apparatus includes an additional continuous felt belt arranged between the carrying belt and the shoe press unit in the elongated pressing nip, and the process further includes guiding the fibrous material web through the elongated pressing nip along with the carrying belt and the additional continuous felt belt.

46. The process in accordance with claim 25, wherein the shoe press unit comprises a water-impermeable pressing belt.

47. The process in accordance with claim 25, wherein the shoe press unit comprises a pressing jacket.

48. The process in accordance with claim 25, wherein the pressing jacket comprises a water-impermeable pressing jacket.

49. An apparatus for producing a fibrous material web comprising:  
at least one shoe press including at least one drying cylinder and a shoe press unit which are arranged to form a pressing nip elongated in a web travel direction;  
at least one suctioned apparatus arranged before said at least one shoe press relative to the web travel direction; and

an overpressure device associated with said at least one suctioned apparatus arranged to support an underpressure effect of said at least one suctioned apparatus.

50. The apparatus in accordance with claim 49, wherein said overpressure device comprises a hood subjected to an overpressure, which is arranged to surround at least a portion of said at least one suctioned apparatus.

3b A4 51. The apparatus in accordance with claim 49, wherein said overpressure device comprises an overpressure fluid comprising at least one of overheated steam and dry and/or moist hot air.

52. A process for producing a fibrous material web in an apparatus that includes at least one shoe press having at least one drying cylinder and a shoe press

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unit which are arranged to form a pressing nip elongated in a web travel direction, at least one suctioned apparatus arranged before the at least one shoe press relative to the web travel direction, and an overpressure device associated with the at least one suctioned apparatus, the process comprising:

guiding the fibrous material web over the at least one suctioned apparatus; and  
subjecting the fibrous material web to an overpressure while is it guided over the at least one suctioned apparatus.

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